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(71) Applicant (for all designated States except US): **BAUSCH & LOMB INC. [US/US]**; One Bausch & Lomb Place, Rochester, NY 14604-2701 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BJÖRN, Kahlen** [DE/DE]; Con Trace GmbH, Hinrich-Ahrnke-Strasse 2, 28757 Bremen (DE).

(74) Agent: **VOSSIUS & PARTNER**; Siebertstrasse 4, 81675 Munich (DE).

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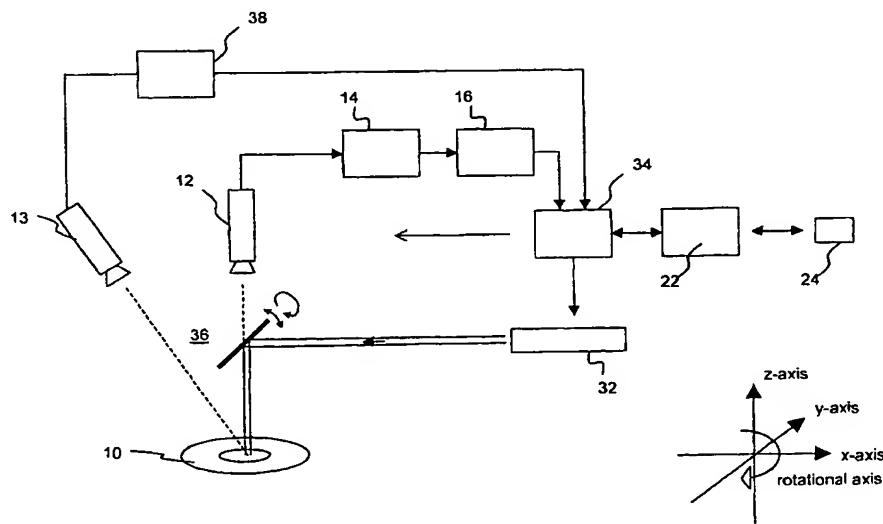
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(54) Title: SYSTEM AND METHOD FOR ACQUIRING DATA AND ALIGNING AND TRACKING OF AN EYE



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(57) Abstract: A system and a corresponding method is provided for aligning and/or tracking of an eye of a patient with reference to an ophthalmic unit for performing diagnosis and/or treatment of the eye. The system comprises means for providing a previously acquired iris code of the eye, an iris recognition unit for acquiring an iris code of the eye under investigation and a comparator for comparing the previously acquired iris code with the present iris code and to provide a comparison result. The ophthalmic unit performs said diagnosis and/or treatment of the eye when said comparison result is greater than an identification determining level.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No PCT/EP2004/003415

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A61B5/117 A61B3/00 G06K9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 A61B G06K G09K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
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EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/28476 A (HOHLA KRISTIAN ; NEUHANN THOMAS (DE); TECHNOLAS GMBH OPHTHALMOLOGISC () 26 April 2001 (2001-04-26) page 2, line 5 – page 5, line 2; figures 2,5-8,10,12 page 6, line 5 – page 11, line 12 claims 1-4,10-12,22,23,31,40 page 14, paragraph 3 – page 21, paragraph 2 page 25, paragraph 3 – page 30, last paragraph	1,3-10, 12-17, 25,27
Y	----- -/-	2,7,11, 15

<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.
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* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
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Date of the actual completion of the International search

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Authorized officer

Neef, T

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/003415

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/087442 A (GROTEHUSMANN ULF ; YOUSEFFI GERHARD (DE); BAUSCH & LOMB (US)) 7 November 2002 (2002-11-07) page 1, paragraph 1 – page 9, last paragraph; figure 1 page 11, paragraph 3 – page 20, paragraph 1; figures 1-5	1-5, 7-13, 16-19, 25-27
Y		2,7,11
X	WO 01/89373 A (SENSOMOTORIC INSTR GMBH ; LUTZ PETER (DE); TAYLOR NATALIE (DE); TEIWES) 29 November 2001 (2001-11-29) page 2, paragraph 4 – page 14, last paragraph; figure 1	1-3,6, 8-13,16, 17,25,26
A		4,5,7, 18,19
Y		15
X	US 5 291 560 A (DAUGMAN JOHN G) 1 March 1994 (1994-03-01)	17-19,27
A	column 2, line 31 – column 3, line 45; figures 1,2,4,6,11 column 9, line 30 – column 18, line 22 column 5, line 1 – column 8, line 69	1-4, 7-11,16, 25,26
A	WILLIAMS G O: "IRIS RECOGNITION TECHNOLOGY" IEEE AEROSPACE AND ELECTRONIC SYSTEMS MAGAZINE, IEEE INC. NEW YORK, US, vol. 12, no. 4, 1 April 1997 (1997-04-01), pages 23-29, XP000677464 ISSN: 0885-8985 the whole document	8-11, 16-19, 26,27
A	WILDES R P: "IRIS RECOGNITION: AN EMERGING BIOMETRIC TECHNOLOGY" PROCEEDINGS OF THE IEEE, IEEE. NEW YORK, US, vol. 85, no. 9, 1 September 1997 (1997-09-01), pages 1348-1363, XP000738562 ISSN: 0018-9219 the whole document	8-11, 16-19, 26,27

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/003415

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7, 25

system for acquiring data of a patient's eye and method
using the system

2. claims: 8-16, 26

system for aligning and tracking of patient's eye by
comparing iris representations/codes and method using the
system

3. claims: 17-24, 27

Iris recognition unit generating an iris representation and
method using the system

INTERNATIONAL SEARCH REPORT

Information on patent family members

 International Application No
PCT/EP2004/003415

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